PATIENT & CAREGIVER EDUCATION

Image-Guided, Intensity-Modulated Radiation Therapy (IG-IMRT) to the Prostate

This information will help you get ready for image-guided, intensity-modulated radiation therapy (IG-IMRT) to the prostate, including what to expect before, during, and after your treatment. You’ll also learn about side effects and how to care for yourself during your treatment.

We suggest you read through this resource at least once before you start radiation therapy, and then use it as a reference in the days leading up to your treatments to help you prepare. Bring it with you for your simulation appointment and all future appointments with your radiation oncologist so you and your healthcare team can refer to it.

About IG-IMRT

Radiation therapy uses high-energy rays to treat cancer. It works by damaging the cancer cells and making it
hard for them to reproduce. Your body then is naturally able to get rid of these damaged cancer cells. Radiation therapy also affects normal cells. However, your normal cells are able to repair themselves in a way that cancer cells can’t.

IG-IMRT is a type of targeted external beam radiation therapy. During external beam radiation, a treatment machine will aim beams of radiation directly to the tumor. The beam passes through your body and destroys cancer cells in its path. You won’t see or feel the radiation.

IG-IMRT uses images that are taken in real time to mold the radiation beams to your tumor. Because the normal movements of your body can cause your prostate to move slightly during or between treatments, your healthcare team will insert markers into your prostate. These allow your doctors to have a better view of your prostate during your treatments. The radiation machine moves around your body so the beams can be aimed from many angles. In addition, the shape of the beam changes while the treatment is being given. This changes the intensity of the beam, which allows your doctor to target your tumor and avoid your healthy tissue.
You may receive radiation therapy either alone or in combination with hormone therapy. Depending on the stage of the cancer, your doctor may recommend hormonal therapy. The goal of hormonal therapy is to shrink the prostate gland and stop the cancer from growing to help make the treatment more effective. For more information, read *Hormonal Therapy During Radiation Therapy to Your Prostate* (www.mskcc.org/pe/hormonal_therapy_prostate_cancer).

**Your role on your radiation therapy team**

Your radiation therapy care team will work together to care for you. You’re a part of that team, and your role includes:

- Getting to your appointments on time.
- Asking questions and talking about your concerns.
- Telling someone on your care team when you have symptoms related to your treatment.
- Telling someone on your care team if you’re in pain.
- Caring for yourself at home by:
  - Quitting smoking if you smoke. MSK has specialists who can help you quit smoking. For more information about our Tobacco Treatment Program, call 212-610-0507.
- Caring for your skin based on your care team’s instructions
- Drinking liquids based on your care team’s instructions.
- Eating the foods your care team suggests.
- Staying around the same weight.

**Marker placement**

Before you begin IG-IMRT, you’ll need to have 3 markers placed in your prostate. There are 2 types of markers: fiducial markers or beacon transponders (Calypso®). Fiducial markers are made of gold. They allow a computed tomography (CT) scanner to identify your prostate gland and tumor. The beacon transponders send signals to a specially designed tracking system, similar to a GPS system. The beacon transponder allows your radiation therapists to precisely check the position of your tumor during each treatment. This helps us to make any necessary adjustments and ensures that the radiation poses the least risk to healthy tissues while maximizing the dose to the tumor.

Your markers will be placed at least 5 days before you begin your simulation, by your healthcare team in the urology department. A nurse will call you to review the
procedure with you. You’ll receive a resource called About Your Prostate Fiducial Marker Placement (www.mskcc.org/pe/fiducial_markers) that has more information about the procedure.

**Before your marker placement**

- Tell your doctor if you take any medications to thin your blood. We have listed some below, but there are others.
  - Aspirin
  - Clopidogrel (Plavix®)
  - Dalteparin (Fragmin®)
  - Heparin
  - Warfarin (Coumadin® or Jantoven®)
  - Enoxaparin sodium (Lovenox®)
  - Rivaroxaban (Xarelto®)

**3 days before your marker placement**

You may need to stop taking certain medications, including:

- Aspirin
- Products that contain aspirin
- Vitamin E
Nonsteroidal anti-inflammatory drugs (NSAIDs) such as:

- Ibuprofen (Advil® or Motrin®)
- Naproxen (Aleve®)

If you take aspirin because you’ve had a problem with your heart or you’ve had a stroke, be sure to talk with your doctor before you stop taking it. For more information, review the resource Common Medications Containing Aspirin, Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), or Vitamin E (www.mskcc.org/pe/common_meds). It includes important information about medications you’ll need to avoid before your procedure and what medications you can take instead.

**The day of your marker placement**

- Do a Fleet® enema 3 hours before your procedure. You can purchase it at your local pharmacy without a prescription. Follow the instructions on the box.
- You’ll need to take an antibiotic to prevent infection from the procedure. Your doctor or nurse will tell you which antibiotic you’ll take.
Simulation

Before you begin your treatment, you’ll have a treatment planning procedure called a simulation. This is done to make sure that:

- Your treatment site is mapped out.
- You get the right dose of radiation.
- The amount of radiation that gets to your nearby tissues is as small as possible.

During your simulation, you’ll have imaging performed (see below) and your skin will be marked with little tattoo dots. These marks help your therapists to line you up correctly for your treatment.

Take devices off your skin

You may wear certain devices on your skin. Before your simulation or treatment, device makers recommend you take off your:

- Continuous glucose monitor (CGM)
- Insulin pump

If you use one of these, ask your radiation oncologist if you need to take it off. If you do, make sure to bring an extra device to put on after your simulation or treatment.
You may not be sure how to manage your glucose while your device is off. If so, before your appointment, talk with the healthcare provider who manages your diabetes care.

**Bowel preparation**

During your simulation, your bowel must be empty of stool. You’ll need to do a bowel preparation for your simulation.

You’ll need to buy the following supplies before your simulation:

- Methylcellulose dissolvable fiber supplement (such as Citrucel® powder).
- Fleet® enema.

You can buy these at your local pharmacy without a prescription.

**7 days before your simulation**

- Mix 1 rounded tablespoon of methylcellulose powder in 8 ounces of water and drink. You must do this every day until the day of your simulation.
The day of your simulation

- Do a Fleet® enema 3 hours before your simulation. Follow the instructions on the box.
- Take your usual medications.
- During the simulation, you’ll stay in one position for a long time. If you think this will be hard for you, take acetaminophen (Tylenol®) or your usual pain medication 1 hour before your appointment.

Diet guidelines to minimize bloating

During your radiation therapy, gas or fluid can build up in your bowels (intestines) and cause bloating. When your bowels are bloated, they can expand into the treatment area and be exposed to radiation. This can cause side effects or make your side effects worse.

Follow the guidelines below to lower your risk of bloating during radiation therapy. It’s best to start 2 to 3 days before your simulation and continue until you have finished your radiation therapy.

- Chew your food well.
- Limit or avoid foods that release gas when they’re digested, such as:
  - Asparagus
  - Dried beans, peas, and other legumes
- Beer
- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- Corn
- Garlic
- Leeks
- Milks and other dairy products with lactose (if you’re lactose-intolerant)
- Onions
- Prunes

- Avoid carbonated (fizzy) drinks, such as sodas and sparkling waters.
- Limit or avoid sugar alcohols, such as xylitol, sorbitol, and mannitol. Sugar-free foods often have sugar alcohols. If you’re not sure, check the ingredients list on the food’s Nutrition Facts label.
- Choose cooked vegetables instead of raw vegetables.
- Depending on your symptoms, your healthcare provider may tell you to eat more or less fiber. Follow their instructions.

If you’re bloated, keeping a food journal can help you see which foods may be causing it. Write down your foods and drinks, the time you have them, and the time you start feeling bloated. Bring your food journal to your appointments. Your healthcare provider will use it to help you manage the bloating.
A clinical dietitian-nutritionist can talk with you about your diet and help you design an eating plan that meets your needs. If you’d like to meet with a clinical dietitian-nutritionist, ask your radiation oncologist or nurse for a referral.

**What to expect**

A member of your radiation therapy team will check you in. You’ll be asked to state and spell your full name and date of birth many times. This is for your safety and part of our standard identification process. People with the same or similar name may be having care on the same day as you.

When you arrive for your appointment, your radiation therapist will greet you and take a photograph of your face. This picture will be used to identify you throughout your treatment.

Your therapist will review and explain the simulation to you. If you haven’t already signed a consent form, your radiation oncologist will review everything with you, and ask for your signature.

**During your simulation**

Your radiation therapists may also ask you to drink 8 to 12 ounces of water before the simulation starts. This is
to fill your bladder. Having a comfortably full bladder and empty bowel during your treatments will help limit the amount of radiation that gets to your healthy tissue. This helps lower your risk of side effects.

When it’s time for your simulation, you’ll change into a hospital gown. Keep your shoes on.

Your therapists will help you lie down on your back on the table and make every effort to ensure your comfort and privacy.

Although the table will have a sheet on it, it’s hard and has no cushion. If you haven’t taken pain medication and think you may need it, tell your therapists before your simulation begins. Also, the room is usually cool. If you feel uncomfortable at any time, let your therapists know.

Throughout your simulation, you’ll feel the table move into different positions. The lights in the room will be turned on and off and you’ll see red or green laser lights on each wall. Your radiation therapists use these laser lights as a guide when they position you on the table. **Don’t look directly into the laser. If you do, it may damage your eyes.**

Don’t move once your simulation starts. It’s important that you stay in the same position. If you’re
uncomfortable or need help, tell your radiation therapists.

Your simulation will take about 2 hours but can be shorter or longer depending on your specific treatment. Your radiation therapists will walk in and out of the room during your simulation, but there will always be someone who can see and hear you. You’ll hear your radiation therapists talking to each other as they work. They’ll also talk to you about what they’re doing. Your therapists can play music for you to help pass the time.

**Positioning (mold)**

While you are lying on the table, a mold will be made of your lower body. Your therapists will place a warm, wet sheet of plastic over your abdomen, hips, and thigh areas (pelvic area). They’ll press on it to shape it to fit around your body. As the mold cools, it hardens. This procedure takes about 15 minutes.

During your simulation, and every day of your treatment, this mold will be placed over you. It will be attached to the table on which you are lying. It helps ensure that you are in the correct position each time you receive your treatment.
**X-rays and CT scan**

While you are lying in your position, you’ll get x-rays of the area to be treated (see Figure 1). If you had markers placed, they’ll be seen on these images. These may be done on an x-ray machine called a simulator or on a CT scan machine. These scans are used only to map your treatment. **They are not used for diagnosis or to find tumors.** If you need other imaging, your nurse will explain this to you.

Before the scan is taken, a small rubber catheter will be inserted into your rectum. This catheter is to help us see your rectum on the scans.
It will take about 45 minutes to get your scan. During the scan, you’ll hear the machine turn on and off. Even if the noise seems loud, your therapists will be able to hear you if you speak with them.

**Magnetic resonance imaging (MRI)**
Your doctor may order an MRI to be done on the day of simulation. You’ll lie on a flat table with the mold made during simulation in place over your pelvis.

**Skin markings (tattoos)**
Your therapists will draw on your skin in the area being treated with a felt marker and make about 4 to 6 permanent skin markings called tattoos. Your therapists will use a sterile needle and a drop of ink to make the tattoo. The sensation of getting one feels like a pinprick. The tattoo marks are no bigger than the head of a pin. The felt markings can be washed off after your simulation. **The tattoos are permanent and won’t wash off.** If you are concerned about receiving tattoos as part of your radiation treatment, talk with your doctor.

After the tattoos are made, your therapists will take several photographs of you in your simulation position. The photographs and tattoo marks will be used to position you correctly on the table each day of your...
After your simulation
At the end of your simulation, we’ll give you an appointment for your set-up procedure. This is the final appointment before your treatment begins.

Scheduling your treatment
Radiation treatments may be given Monday through Friday, for 8 to 10 weeks. Your treatment will be given for about _____ days/weeks. You’ll be in the department about 60 to 90 minutes each day.

You must come in every day that you are scheduled for your treatment. Treatment may not be as effective if you skip or miss appointments. If you for some reason you can’t come in for treatment, you must call your radiation oncologist’s office to let your team know. If you need to change your schedule for any reason, speak with your radiation therapist.

Treatment planning
During the time between your simulation and your set-up procedure, your radiation oncologist will work with a team to plan your treatment. They’ll use the images taken during your simulation to plan the angles and shapes of the radiation beams. They’ll also determine the dose of radiation that you’ll receive. These details
are carefully planned and checked. This may take up to 2 weeks.

Your treatment plan is based on your body shape and size at the time of your simulation. Try to keep your weight within 5 to 10 pounds of your usual weight to ensure that the plan remains accurate.

**Vitamins and dietary supplements**

Many people ask about taking vitamins during treatment. You may take a daily multivitamin, if you wish. Don’t take more than the recommended daily allowance of any vitamin. Don’t take any other vitamins or any supplements without talking to your doctor. This includes both nutritional and herbal supplements.

**Set-up procedure**

Before your first treatment, you’ll be scheduled for a set-up procedure. This generally takes about 1 hour. If pain medication was helpful during your simulation, you may want to take it before this procedure.

When you come for your set-up procedure, you’ll be shown to the dressing room and asked to change into a gown. Your therapists will bring you to the room where you’ll receive your treatment each day. They’ll position you on the treatment table. You’ll lie exactly as you did
on the day of your simulation.

Special images (x-rays or CT scans) called beam films will be taken to make sure that your position and the area being treated are correct. If you had markers placed, these can be seen on the x-rays and will help us position you correctly. The beam films will be repeated throughout your treatment. They are not used to see how your tumor is responding to the treatment.

**During your treatment**

Your radiation therapy team will let you know if you need to continue drinking the methylcellulose and water mixture during your treatment.

After you check in at the reception desk, have a seat in the waiting room. When they are ready for you, your radiation therapists will ask you to undress from the waist down and change into a gown. You should keep your shoes on during the treatment.

Some people will need to have a full bladder for their treatment. If your doctor tells you this is needed, your therapist will tell you how much water to drink and when to begin drinking it.

Your radiation therapists will bring you into the treatment room and help you lie on the table (see Figure Image-Guided, Intensity-Modulated Radiation Therapy (IG-IMRT) to the Prostate
2). You’ll be positioned exactly how you were during your set-up procedure.

Once you are positioned correctly, your therapists will leave the room, close the door, and begin your treatment. If you had gold seeds placed, x-rays will be taken daily. Your radiation oncologist may use these to make adjustments to your treatment.

The beams of radiation are shaped by many small leaves of tungsten (a type of metal) sitting at the opening of the treatment machine. The computer will move the leaves into different positions to block the radiation. The
radiation that passes through the opening between the leaves creates the beam that is directed toward your body. The leaves move while the beam is passing through. This varies the intensity of the beam and ensures that you receive the exact doses prescribed by your radiation oncologist.

You won’t see or feel the radiation, although you may hear the machine as it moves around you and is turned on and off. You’ll be in the treatment room for 15 to 45 minutes, depending on your treatment plan. Most of this time will be spent putting you in the correct position. The actual treatment only takes a few minutes.

Although you are alone during your treatment, your therapists can see you on a monitor and hear you through an intercom at all times. Your radiation therapist will make sure that you are comfortable during the treatment. Breathe normally during your treatment, but don’t move. However, if you are uncomfortable and need help, speak to your radiation therapists. They can turn off the machine and come in to see you at any time, if necessary.

Neither you, nor your clothes will become radioactive during or after treatment. It’s safe for you to be around other people.
Weekly visits during treatment (status checks)
Your radiation oncologist and radiation nurse will see you each week to evaluate your response to treatment, ask about any side effects you may be having, and answer your questions. This visit will be before or after your treatments each ___________. You should plan on being in the department about 1 extra hour on those days.

If you need to speak with your radiation oncologist or radiation nurse any time between these weekly visits, call your radiation oncologist’s office or ask the support staff or your therapists to contact them when you come in for treatment.

Side effects
Some people develop side effects from radiation therapy. The type and severity of side effects varies from person to person. Below are the most common side effects of radiation therapy to the prostate. You may have all, some, or none of these.

Urinary changes
Your prostate gland may swell and the lining of your bladder may become irritated during treatment. About 2 weeks after starting treatment you may have:
• Difficulty starting to urinate.
• Increased frequency of urination.
• Frequent need to urinate at night.
• Sudden urge to urinate.
• Burning with urination.

Below are guidelines to help you manage these symptoms.

• Drink 6 to 8 glasses of water throughout the day.
• Decrease your intake of liquids after 8:00 p.m.
• Avoid foods and beverages that may irritate the bladder. Examples are:
  ○ Caffeine (such as tea, coffee, soda)
  ○ Alcohol
  ○ Spicy foods (especially if you have burning with urination)
• Tell your doctor or nurse know if you have any urinary changes. They can recommend a change in your diet or prescribe medication that can help.

**Bowel changes**

The wall of the rectum may become irritated. About 2 weeks after starting treatment you may have:
- More frequent and softer bowel movements.
- Worsening of hemorrhoidal symptoms.
- Rectal discomfort.
- Mucous discharge.
- A small amount of rectal bleeding.
- Increased gas.
- An increased urge to have a bowel movement.

These symptoms are usually mild. When you begin treatment, there are no restrictions on your diet. If you develop any of these symptoms, talk with your nurse about how you can change your diet to reduce them. If you are still uncomfortable, let your doctor or nurse know. They can prescribe medication to help.

**Sexual health**
You might have concerns about how cancer and your treatment can affect your sexuality. You aren’t radioactive. You can’t pass radiation to anyone else, so it’s safe to be in close contact with other people.

You can be sexually active during radiation treatment, unless your radiation oncologist gives you other instructions. However, if you or your partner are able to have children, you must use birth control (contraception) to prevent pregnancy during your
See the resource *Sex and Your Cancer Treatment* ([www.mskcc.org/pe/sex_cancer_treatment](http://www.mskcc.org/pe/sex_cancer_treatment)) for additional information. The American Cancer Society also has resources about sexual health issues during cancer treatment. The one for men is called *Sex and the Man with Cancer*. You can search for it at [www.cancer.org](http://www.cancer.org) or call 800-227-2345 for a copy.

Some men have a burning sensation during ejaculation. In most men, it goes away 1 to 2 months after treatment is done.

Some men develop sexual changes after treatment is done. You may have:

- Erectile dysfunction (difficultly or inability to have or maintain an erection).
- A change in the sensation of orgasm.
- A change in the amount or consistency of your ejaculation.

These sexual changes may occur many months or even years after treatment. There are treatments for erectile dysfunction. We can give you a referral to a doctor who treats these problems.
Memorial Sloan Kettering (MSK) has a Male Sexual and Reproductive Medicine Program to help people address the impact of their disease and treatment on sexual health. You can meet with a specialist before, during, or after your treatment. We can give you a referral, or you can call 646-888-6024 for an appointment.

Reproductive health
Exposure of your testes to radiation may affect sperm production and your ability to have children in the future. If you want to preserve your ability to have biological children, we recommend banking your sperm before treatment begins. This involves collecting, freezing, and storing your sperm. Sperm can be stored for as long as you want, even for many years. See the resources Sperm Banking (www.mskcc.org/pe/sperm_banking) and Building Your Family After Cancer Treatment: For People Born With Testicles (www.mskcc.org/pe/building_family_born_testicles) for more information.

If you are sexually active with a woman of reproductive age, it’s important to use birth control during treatment and for 1 year after treatment is completed. This is to make sure you don’t conceive with sperm that may have been damaged by exposure to radiation, which could
possibly result in birth defects.

**Skin and hair reactions**

During treatment, you probably won’t notice any changes in your skin in the area being treated. However, you may lose some or all of the hair in your pubic area. The hair will usually grow back 3 to 6 months after treatment is done; however, the color and texture may be different.

Below are guidelines to help you care for your skin during treatment. **These guidelines refer only to the skin in the area being treated with radiation.**

**Keep your skin clean**

- Bathe or shower daily using warm water and a mild unscented soap, such as Neutrogena®, Dove®, baby soap, Basis®, or Cetaphil®. Rinse your skin well and pat it dry with a soft towel.

- When washing, be gentle with your skin in the area being treated. Don’t use a washcloth, a scrubbing cloth, or brush.

- If you received tattoo marks before your treatment, they are permanent and won’t wash off. You may get other markings during treatment such as an outline of your treatment area with a purple felt-tipped marker.
You can remove these markings with mineral oil when your therapists say it’s okay.

- **Don’t use alcohol or alcohol pads on your skin in the area being treated. Also, don’t use astringents, which are substances that shrink your body tissues. Two examples of astringents are calamine lotion and witch hazel.**

**Moisturize your skin often**

- Start using a moisturizer when you begin treatment. This can help to minimize any skin reaction. You can use over-the-counter moisturizers. When choosing a moisturizer pick one that does not have any fragrances or lanolin. There are a number of products that are good to use, and your nurse may suggest one of these to you. Use only one at a time unless your nurse tells you to use more.

- If you are using a moisturizer, apply it 2 times a day.

**Avoid irritating the skin in the area being treated**

- Wear loose-fitting cotton clothing in the area being treated. Don’t wear tight clothing that will rub against your skin.

- Use only the moisturizers, creams, or lotions that are recommended by your doctor or nurse.
• If your skin is itchy, don’t scratch it. Apply moisturizer. Ask your nurse for recommendations on how to relieve the itching.

• Don’t let your treated skin come into contact with extreme hot or cold temperatures. This includes hot tubs, water bottles, heating pads, and ice packs.

• If you have no skin reactions during your treatment, you can swim in a chlorinated pool. However, be sure to rinse off the chlorine right after getting out of the pool.

• Avoid tanning or burning your skin during treatment and for the rest of your life. If you are going to be in the sun, use a PABA-free sunblock with an SPF of 30 or higher. Also, wear loose-fitting clothing that covers you as much as possible.

**Fatigue**

Fatigue is a feeling of being tired or weak, not wanting to do things, not being able to concentrate, or feeling slowed down. You may develop fatigue after 2 to 3 weeks of treatment, and it can range from mild to severe. Fatigue may last 6 weeks to 12 months after your treatment ends.

There are a lot of reasons why you may develop fatigue during treatment, including:
The effects of radiation on your body.
Traveling to and from treatment.
Not having enough restful sleep at night.
Not eating enough protein and calories.
Having pain or other symptoms.
Feeling anxious or depressed.
Certain medications.

You may find that your fatigue is worse at certain times of the day. Below are suggestions to help you manage your fatigue.

**Ways to manage fatigue**

- If you are working and are feeling well, continue to do so. However, working less may help increase your energy.
- Plan your daily activities. Pick those things that are necessary and most important to you and do them when you have the most energy. For example, you may go to work but not do housework, or watch your children’s sports event but not go out to dinner.
- Plan time to rest or take short naps (10 to 15 minutes) during the day, especially when you feel more tired. If you do nap, try to sleep for less than 1 hour at a time.
- Try to sleep at least 8 hours every night. This may be more sleep than you needed before you started radiation therapy. You may also find it helpful to go to sleep earlier at night and get up later in the morning. One way to sleep better at night is to be active during the day. For example, if you are able to exercise, you could go for a walk or do yoga. Another way to sleep better at night is to relax before going to bed. You might read a book, work on a jigsaw puzzle, listen to music, or do calming hobbies.

- Ask family and friends to help you with things like shopping, cooking, and cleaning. Check with your insurance company to see if they cover home care services.

- Some people have more energy when they exercise. Ask your doctor if you can do light exercise, such as walking, stretching, or yoga. Avoid riding a bicycle during treatment as this may put pressure on your prostate area, but you may use an inclined bike.

- Eat foods that are high in protein and calories. Ask your nurse for the resource *Eating Well During Your Cancer Treatment* ([www.mskcc.org/pe/eating_cancer_treatment](http://www.mskcc.org/pe/eating_cancer_treatment)).

- Other symptoms, such as pain, nausea, diarrhea, difficulty sleeping, or feeling depressed or anxious,
can increase your fatigue. Ask your doctor or nurse for help with any other symptoms you may have.

**Emotional health**

Cancer diagnosis and treatment can be very stressful and overwhelming. You may feel:

- Anxious or nervous
- Afraid
- Alone
- Angry
- Depressed
- Helpless
- Frustrated
- Numb
- Uncertain
- Worried

You might also worry about telling your employer you have cancer or about paying your medical bills. You may worry about how your family relationships may change, or that the cancer will come back. You may worry about how cancer treatment will affect your body, or if you will still be sexually attractive.

It’s normal and OK to worry about all these things. All these kinds of feelings are normal when you or someone you love has a serious illness. We’re here to support you.

**Ways to cope with your feelings**

**Talk with others.** When people try to protect each other by hiding their feelings, they can feel very alone.
Talking can help the people around you know what you’re thinking. It might help to talk about your feelings with someone you trust. For example, you can talk with your spouse or partner, close friend, or family member. You can also talk with a chaplain (spiritual advisor), nurse, social worker, or psychologist.

**Join a support group.** Meeting other people with cancer will give you a chance to talk about your feelings and learn from others. You can learn how other people cope with their cancer and treatment and be reminded you are not alone.

We know that all cancer diagnoses and people with cancer are not the same. We offer support groups for people who share similar diagnoses or identities. For example, you can join a support group for people with breast cancer or for LGBTQ+ people with cancer. To learn about MSK’s support groups, visit [www.msk.org/vp](http://www.msk.org/vp). You can also talk with your radiation oncologist, nurse, or social worker.

**Try relaxation and meditation.** These kinds of activities can help you feel relaxed and calm. You might try thinking of yourself in a favorite place. While you do, breathe slowly. Pay attention to each breath or listen to soothing music or sounds. For some people, praying is
another way of meditation. Visit www.msk.org/meditations to find guided meditations lead by our Integrative Medicine providers.

**Exercise.** Many people find that light movement, such as walking, biking, yoga, or water aerobics, helps them feel better. Talk with your healthcare provider about types of exercise you can do.

We all have our own way of dealing with difficult situations. Often, we use whatever has worked for us in the past. But sometimes this is not enough. We encourage you to talk with your doctor, nurse, or social worker about your concerns.

**After your treatment**

At the end of treatment, you’ll be told how often to see your doctors for follow-up appointments. Please be sure to keep your follow-up appointments with your radiation oncologist. He or she will evaluate your response to treatment. You may have blood tests, x-rays, scans, and biopsy during these visits. Before coming, write down your questions and concerns. Bring this and a list of all your medications with you. You can also call your doctor or nurse at any time after your treatment is completed, or in between follow-up appointments, if you have any questions or concerns.
Late side effects
Keeping your follow-up appointments will help us identify any late effects of treatment.

Radiation can cause permanent side effects in the bladder and bowel. Many people are not aware of these changes and don’t have any symptoms. However, some people will develop symptoms 4 months or more after treatment. These may be similar to the ones you had during treatment. However, there’s a very small chance that you may develop others. These are very rare but may include:

- Narrowing of the opening of the bladder
- Loss of urinary control
- Blood in the urine
- Rectal bleeding

These symptoms may come and go over time. They can also be persistent and chronic. Even if you don’t develop any late side effects, remember that the tissues in your bladder and rectum have been affected by the treatment. Call your radiation oncologist if you:

- Have any new urinary, bladder, or bowel symptoms.
- Need to have a colonoscopy. Avoid having a colonoscopy for the first year after treatment.
• Need any type of rectal procedure.

If you took vitamins before your treatment, you can re-start taking them 1 month after your treatment is done. If you would like to speak with a dietitian about your diet or supplements, please ask your nurse to arrange this.

Resources

MSK support services
Counseling Center
www.msk.org/counseling
646-888-0200
Many people find that counseling helps them. Our counseling center offers counseling for individuals, couples, families, and groups. We can also prescribe medications to help if you feel anxious or depressed. To make an appointment, ask your healthcare provider for a referral or call the number above.

Integrative Medicine Service
www.msk.org/integrativemedicine
Our Integrative Medicine Service offers many services to complement (go along with) traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. To
schedule an appointment for these services, call 646-449-1010.

You can also schedule a consultation with a healthcare provider in the Integrative Medicine Service. They will work with you to come up with a plan for creating a healthy lifestyle and managing side effects. To make an appointment, call 646-608-8550.

**Male Sexual and Reproductive Medicine Program**
646-888-6024
Cancer and cancer treatments can affect your sexual health, fertility, or both. Our **Male Sexual and Reproductive Medicine Program** can help with sexual health problems, such as erectile dysfunction (ED). We can help before, during, or after your treatment. Call for more information or to make an appointment.

**Nutrition Services**
[www.msk.org/nutrition](http://www.msk.org/nutrition)
212-639-7312
Our Nutrition Service offers nutritional counseling with one of our clinical dietitian-nutritionists. Your clinical dietitian-nutritionist will talk with you about your eating habits. They can also give advice on what to eat during and after treatment. To make an appointment, ask a member of your care team for a referral or call the
Resources for Life After Cancer (RLAC) Program
646-888-8106
At MSK, care does not end after your treatment. The RLAC Program is for patients and their families who have finished treatment.

This program has many services. We offer seminars, workshops, support groups, and counseling on life after treatment. We can also help with insurance and employment issues.

Tobacco Treatment Program
www.msk.org/tobacco
212-610-0507
MSK has specialists who can help you quit smoking. For more information about our Tobacco Treatment Program, call 212-610-0507. You can also ask your nurse about the program.

External resources
American Cancer Society (ACS)
www.cancer.org
800-ACS-2345 (800-227-2345)
Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.
American Society for Therapeutic Radiology and Oncology
www.rtanswers.org
800-962-7876
A group of radiation oncology professionals that specializes in treating patients with radiation therapy. Provides detailed information on treating cancer with radiation and contact information for radiation oncologists in your area.

CancerCare
www.cancercare.org
800-813-HOPE (800-813-4673)
275 7th Ave. (between West 25th & 26th streets)
New York, NY 10001
Provides counseling, support groups, educational workshops, publications, and financial assistance.

Cancer Support Community
www.cancersupportcommunity.org
Provides support and education to people affected by cancer.

National Cancer Institute (NCI) Cancer Information Service
www.cancer.gov
800-4-CANCER (800-422-6237)
Provides education and support to people with cancer and their families. Publications are available online and in print.

**National Alliance of State Prostate Cancer Coalitions (NASPCC) National**

[www.naspcc.org](http://www.naspcc.org)

**Prostate Cancer Foundation**

[www.pcf.org](http://www.pcf.org)

**US Too International Prostate Cancer Education and Support Network**

[www.ustoo.org](http://www.ustoo.org)

**Contact information**

If you have questions or concerns, talk with a member of your radiation therapy team. You can reach them Monday through Friday from 9 a.m. to 5 p.m. at these numbers.
Questions to ask your radiation oncologist

Before your appointment, it’s helpful to write down questions you want to ask. Examples are listed below. Write down the answers during your appointment so you can review them later.

What kind of radiation therapy will I get?

How many radiation treatments will I get?

What side effects should I expect during my radiation therapy?
therapy?

Will these side effects go away after I finish my radiation therapy?

What kind of late side effects should I expect after my radiation therapy?

For more resources, visit www.mskcc.org/pe to search our virtual library.